

WHAT IS CLAIMED IS:

1. An endoscope apparatus comprising:

an input device which has an elongated an
elongated insert portion having flexibility and being
5 inserted into a space which is a target of inspection,
and a flexibly bending operation portion which operates
a flexibly bending portion provided at the insert
portion to be flexibly bent;

a manipulating device inserting channel which
10 communicates between a distal opening end that opens at
a distal end side of the insert portion and a proximal
opening end that opens at a proximal end of the insert
portion; and

a linking portion which detachably links between
15 a peripheral portion at the proximal opening end in
the manipulating device inserting channel and the input
device, wherein the linking portion disposes the
proximal opening end of the manipulating device
inserting channel at a position which does not
20 interfere with an operating region of the flexibly
bending operation portion in the input device in
a state in which a link is established between the
input device and the peripheral portion of the proximal
opening end.

25 2. An endoscope apparatus according to claim 1,
wherein the linking portion is disposed on a face which
is different from a face on which the flexibly bending

operation portion of the input device is disposed.

3. An endoscope apparatus according to claim 1, wherein the linking portion is disposed on a side face of the input device.

5 4. An endoscope apparatus according to claim 1, wherein the linking portion is a fixing member fixed to one of at least the input device and the manipulating device inserting channel.

10 5. An endoscope apparatus according to claim 1, wherein the linking portion is a fixing device capable of linking between the input device and the peripheral portion of the proximal opening end at an arbitrary position in an axial direction in the insert portion.

15 6. An endoscope apparatus according to claim 1, wherein the manipulating device inserting channel is an incorporated channel incorporated in the insert portion.

20 7. An endoscope apparatus according to claim 1, wherein the manipulating device inserting channel is an external channel externally provided at the insert portion.

25 8. An endoscope apparatus according to claim 1, wherein the flexibly bending operation portion is a joystick which comprises an operating lever turnably supported at a proximal end portion via a turning fulcrum and generates a signal corresponding to a tilt angle of the operating lever.

9. An endoscope apparatus comprising:

an insert portion which inserts a flexibly bending portion having flexibility, the flexibly bending portion being provided at a distal end side, into
5 a space which is a target of inspection;

a manipulating device inserting channel which loads therein a predetermined manipulating device advancing from a proximal end side of the insert portion to a distal end side of the insert portion;

10 a flexible bending operation portion to flexibly bend the flexibly bending portion of the insert portion remotely by a rod portion operation; and

a connecting device which mounts the flexibly bending operation portion to make the flexibly bending operation portion and the insert portion adjacent to
15 each other, and integrally links the operation portion and the insert portion with each other such that an operating space of the rod portion operation and a loading space required for loading the predetermined
20 manipulating device therein do not overlap each other.

10. An endoscope apparatus according to claim 9, wherein the connecting device is disposed on a face which is different from a face on which a rod portion of the flexible bending operation portion is disposed.

25 11. An endoscope apparatus according to claim 9, wherein the connecting device is disposed on a side face of the flexibly bending operation portion.

12. An endoscope apparatus comprising:

an elongated insert portion to be inserted into
an object;

an operating portion which operates the insert
5 portion; and

a connecting portion which detachably connects
both or any one of the insert portion and the operating
portion to a portion to be mounted, that is provided
any one of a mount tool at an operator's body side or
10 a peripheral device.

13. An endoscope apparatus according to claim 12,
wherein the connecting portion comprises a first
connecting portion which mounts any one of at least the
insert portion and the operating portion thereto and
15 a second connecting portion which is mounted on the
portion to be mounted, and force line directions during
an operation of mounting the first connecting portion
and the second connecting portion are different from
each other.

20 14. An endoscope apparatus according to claim 12,
wherein the connecting portion has a linking portion
which detachably links the first connecting portion and
the second connecting portion with each other.

15. An endoscope apparatus according to claim 12,
25 wherein the connecting portion is mounted to be plugged
into an operator's belt.

16. An endoscope apparatus comprising:

an insert portion which inserts a flexibly bending portion having flexibility, the flexibly bending portion being provided at a distal end side, into a space which is a target of inspection;

5 a manipulating device inserting channel which loads therein a predetermined manipulating device advancing from an opening end at the proximal end side of the insert portion to an opening end at the distal end side of the insert portion;

10 a flexibly bending operation portion having a rod portion to flexibly bend the flexibly bending portion of the insert portion remotely and a proximal opening end provided out of an operating range of the rod portion; and

15 a display portion provided upward of the flexibly bending operation portion, the display portion displaying a state of the flexibly bending portion by an operation of the rod portion.

17. An endoscope apparatus comprising:

20 an elongated insert portion having flexibility, the elongated insert portion being inserted into a space which is a target of inspection;

 an intermediate linking portion whose one end is linked with a proximal end side of the insert portion and whose other end is linked with a universal cable;

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 an input device comprising a flexibly bending operation portion to operate a flexibly bending portion

provided at the insert portion to be flexibly bent;

a manipulating device inserting channel which communicates between a distal opening end that opens at a distal end side of the insert portion and a proximal opening end that opens at the intermediate linking portion; and

a linking portion which detachably links the input portion and the intermediate linking portion, wherein the linking portion disposes the proximal opening end of the manipulating device inserting channel, the proximal opening end opening at the intermediate linking portion at a position which does not interfere with an operating region of the flexibly bending operation portion in the input device in a state in which a link is established between the input device and the intermediate linking portion.

18. An endoscope apparatus according to claim 17, wherein the linking portion is disposed on a face which is different from a face on which the flexibly bending operation portion of the input device is disposed.

19. An endoscope apparatus according to claim 17, wherein the linking portion is disposed on a side face of the input device.

20. An endoscope apparatus comprising:
an elongated insert portion to be inserted into an object;

an intermediate linking portion whose one end is

linked with a proximal end side of the insert portion
and whose other end is linked with a universal cable;
and

5 a connecting portion for detachably connecting
both or any one of the insert portion and the
intermediate linking portion to a portion to be mounted
that is provided at any one of a mount tool at
an operator's body side or a peripheral device.

10 21. An endoscope apparatus according to claim 17,
wherein the connecting portion comprises:

a first connecting portion which mounts thereto
any one of at least the insert portion and the
intermediate linking portion; and a second connecting
portion which is mounted on the portion to be mounted,
15 and force line directions during an operation of
mounting the first connecting portion and the second
connecting portion are different from each other.

20 22. An endoscope apparatus according to claim 17,
wherein the connecting portion has a linking portion
which detachably links the first connecting portion and
the second connecting portion with each other.